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— with international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/14153

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : E21B 29/00

US CL : 166/384

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 166/277,381,382,384,386,387,297,55,206,207,212,216,217,242.2

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,012,523 A (Campbell et al.) 11 January 2000 (11.01.2000), columns 3 and 4.	1-3,7-12
Y	US 4,848,459 A (Blackwell et al.) 18 July 1989 (18.07.1989), see Figure 1.	1-3,7-12
A	US 6,112,818 A (Campbell et al.) 05 September 2000 (05.09.2000), see Abstract.	1-12
A, P	US 6,425,444 B1 (Metcalf et al.) 30 July 2002 (30.07.2002), see Abstract.	1-12
A, P	US 6,631,765 B2 (Baugh et al.) 14 October 2003 (14.10.2003), see Abstract.	1-12
A	US 3,785,193 A (Kinley et al.) 15 January 1974 (15.01.1974), see Abstract.	1-12
A	US 6,021,850 A (Wood et al.) 08 February 2000 (08.02.2000), see Abstract.	1-12



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z"

document member of the same patent family

Date of the actual completion of the international search

13 November 2003 (13.11.2003)

Date of mailing of the international search report

28 MAY 2004

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:

EAST

search terms: expand, anchor, packer, valve, groove, grip